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ABSTRACT

We at Adams have committed ourselves (1) to search for new ways to make the inquiry into our own activities and the evaluation of our programs relevant and consistent with our notions of humanistic and personal education, and (2) to seek a mechanism for using research and evaluation to improve the operation of the school at every level and for generating data which is generalizable to other schools. The entire staff has the obligation to formulate and seek convincing answers to questions regarding behavioral objectives, evidence to be accepted as indicative of success or failure, and means of obtaining such evidence so that it may be meaningful to others. Much activity will be for ca-line decision-making (daily operational decisions), e.g., matching an individual with an appropriate learning experience to achieve a certain goal. (For such decisions a comprehensive data bank is a needed support system.) It is anticipated that Adams will be a desirable site for the carefully controlled testing of a whole range of ideas, from new instructional packages to hypotheses about new administrative arrangements. A set of committees is envisioned to elicit, screen, and develop ideas into projects or proposals and to act as a regulatatory board. An effort will also be made to document the evolution of the Adams experiment historically and to explore different procedures for such documentation. Such longitudinal records will require setting up a schedule and periodic data gathering. (JS)



RESEARCH AND EVALUATION

AT

JOHN ADAMS HIGH SCHOOL

PORTLAND, OREGON

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE OFFICE OF EDUCATION

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RESEARCH AND EVALUATION AT JOHN ADAMS HIGH SCHOOL

Research and evaluation tend to be frightening words for many educators and such fear is not without justification. Rare is the teacher who has ever found any research relevant to his concerns, and rare is the evaluation which was truly constructive. Teachers are too often "used" by outside researchers who burden them with tests and procedures and leave the teachers ignorant of what was learned or how this information might conceivably be useful.

We at Adams have committed ourselves to search for new ways to make the inquiry into our own activities and the evaluation of our programs relevant and consistent with our notions of humanistic and personal education. In addition, we must seek a mechanism for using research and evaluation to improve the operation of the school at every level; and to seek a mechanism for generating data from Adams which is generalizable to other schools.

Adams is committed by much of its published material to becoming an experimental school with more than its own intuitive claims to substantiate its value. For example, to paraphrase statements from a variety of documents:

- 1. The school's staff must have a basic commitment to the value of scholarly inquiry into their work.
- 2. A climate must be created in the school which stimulates teachers to engage in the <u>systematic study</u> of the process of schooling.
- 3. A climate must be created in the school in which teachers can plan, analyze, and evaluate their teaching, in groups or individually.
- 4. The teams will include <u>evaluation</u> as a fundamental part of their teaching, with the aim of revision of content and teaching strategies.

If Adams High School is to be a truly experimental school, this implies a special responsibility to know what is going on in the school and to be able to justify it to a larger audience in a way that they find convincing.



It is our view that, at least in a field setting, research and evaluation would be inappropriate if the information generated did not affect decision-making. People continually and naturally make judgments and decisions on some basis. In the absence of the appropriate data and information these decisions are too often unnecessarily based on little more than subjective intuition. Research does not deny the role of intuition but rather recognizes the power that carefully analyzed data can have on the quality of the decisions that are made. The whole point of research and evaluation is to improve decision-making by improving the quality of the information on which the decisions are based. A researcher is little more than someone trained in the procedures necessary to gather good data in a way that it can be interpreted to validly answer certain kinds of questions.

Given the publicly stated goals, aims, or objectives of Adams, the entire staff has the obligation to confront certain kinds of questions, and the responsibility of seeking personally convincing answers to those questions. Only then will the information find its way back into the decision-making structure of the school.

These questions might be phrased:

- 1. In that ways do you want people to be different after their contact with you than they were before?
- 2. What would you be willing to accept as evidence that you had succeeded?
- 3. What would you regard as undeniable evidence that you had failed and therefore should make changes?
- 4. How might you go about finding some kinds of evidence, however tenuous, for determining either success or failure?
- 5. How can you gather evidence in a way which is meaningful to someone else?

These questions imply that neither you nor the school should accept a situation in which you continually interact with others—for instance, you teach a course to a group of students — and nothing happens which makes any difference. Neither is it legitimate for you to say that anything which happens is all right. And, if you think something is happening, there eight to be somewhere something which makes you think so.



The task, which we all need to confront, is to gather intellectually defensible data in a way which does not seriously inhibit or restrict what we are trying to do. This is a trade-off phenomenon, and certain kinds of actions taken in the school need to be more widely defensible than others. Actions of a single teacher in a new and highly experimental course in the process of development need be only very tenuously justified. On the other hand the careful testing at the Adams site of an instructional package developed outside, with an eye to national publication of the results, would demand highly justifiable procedures and instruments, and severely controlled actions.

Research and evaluation techniques can be of help only on certain of the five questions -- primarily numbers four and five. Research does not define the goals, nor does it specify the kinds of evidence one might seek to support attainment of the goals.

The sooner individual teachers can take over the task of raising and answering the questions themselves, the better. Research and Evaluation people are much more likely to be used in a service capacity when individuals can raise the basic questions themselves and seek advice for technical problems. Substantially more trained people than the two based in Adams are available "on-call" once individuals or groups know what they want.

We also feel that Adams should establish its own internal standards for judging the quality of its work. A minimal standard, it would seem, would be to ask that a member of the staff, once he has some personally convincing data to justify what he is doing, be able to convince at least one other staff member that what he is doing is legitimate. Given Adams' published rhetoric that systematic and scholarly inquiry into practice is expected of every staff member - administrator, coordinator, counselor, or teacher - it would not be out of line to suggest that every staff member submit regularly to critical examination of his practices by a group of peers.



Additional Areas of Research and Evaluation Activity

- 1. On-line Decision Making (or daily operations decisions)
- 2. Research (The generation of generalizable data)
- 3. Longitudinal, historical records (description)

On-Line Decision Making (Daily Operations Decisions)

One kind of support system which seemingly would be of value to any staff member would be a comprehensive data bank which could be consulted on a day-to-day basis for help in making operational, procedural decisions. Examples are difficult to generate without empirical information on patterns of decision making in the school. However, let us assume that General Education teams will do most of their teaching in groups smaller than the 125 students assigned to them. One critical question they will face, then, is how to divide the students into groups appropriate to the objectives and types of instruction they plan.

Suppose they plan a sequence of instruction to develop an attitude and tolerance toward minority groups. It is well known that no one technique reaches all individuals: some might respond best to an authoritarian harrangue; others to an in-depth investigation of scientific information about race differences; others to psychodrama and role-playing episodes in mixed groups. A team might well plan half a dozen different approaches to the same objectives. They then would be faced with the decision: which students should be exposed to which approach? Which approach is most appropriate for whom?

A Gen. Ed. team might ignore the problem, permitting natural groupings of friends or interest groups. Conceivably, however, a comprehensive data bank on the students might include data relevant to such groupings: dogmatism, tolerance for ambiguity, authoritarianism; responses in situations of similar instructional approaches in other subjects; parent occupation (as an index of socio-economic class); perhaps even a measure of knowledge about minorities.

If such a data bank existed, and there were known relationships between such data and likely responses to an instructional approach (and there are some such known relationships), it would be possible to get a print-out of students who were "high" or "low" on dogmatism; or



who had a "high" or "low" capacity for independent study, and these students could be matched with the more appropriate instructional strategy.

No matter what method was used for the initial division of the students into sub-groups, the team would be interested in monitoring the progress of the students, identifying those for whom nothing was happening or those who were essentially reacting negatively, and shunting these students into some different instructional environment. This would necessitate gathering some intermediate data--ranging from a written test to systematic observation of seating patterns in a mixed group, sociometric measures, or an analysis of stories written in response to pictures of integrated groups. Many of these kinds of data could be gathered as part of the regular class work and could be used for instructional purposes; they need not be regarded as "tests." However, they could also be used to identify students who were not responding to a particular instructional approach.

An information system to feed operational decision-making would have to be able to take data gathered in the course of the instructional sequence and interpret it in a way that teachers could use in planning re-groupings of students. Such a system would have to make heavy use of machines to process the data, but the system does not seem conceptually difficult to achieve. Knowledge about data gathering would be necessary to structure a group assignment so that the data was individually interpretable, and some conceptual work would be needed to identify those kinds of responses which would be considered "unacceptable" and signal a switch to an alternate approach. Neither of these seems particularly difficult. The district already has the capability of processing verbal material by machine.

If Adams seriously want to move in the direction of personalized instruction—matching an individual with an appropriate learning experience to achieve a certain objective—such an on-line information system, which could take data gathered in the course of regular instruction and interpret it to help teachers regroup students more appropriately, would be the most minimal kind of support necessary.



For students who are not generally motivated, finding ways of relating one subject—particularly an academic one—to some other subject the student finds interesting—such as vocational shop—might provide the mechanism for "reaching" that student. A system to provide such data is another example of an aid to on—line decision—making.

What would be needed is a data bank which contained periodically updated statements about what a particular class was doing, or what particular students were doing in the class; and a way of reading in the names of a set of students and getting a print-out categorized by class and subject of what those students were doing in each of their other classes. The print-out should be as short and succinct as possible while still providing enough information to help a teacher integrate what he is doing with what is happening in other courses. Probably some effort will have to be expended playing with different forms for the inputs before we have such a succinctly useful print-out.

As curriculum units or modules are developed, the print-out from the data bank could include a file-drawer where the teacher could look at the unit if it seemed from the short description to be relevant to what he wanted to do. It is not anticipated that a teacher would use this system daily for many students. However, it might be possible to use it regularly when planning for particular classes or groups of students, and it could be consulted at any time in an effort to find out about a particular student and how he might be approached.

The major emphasis to this point has been the generation of data and information of relevance primarily to Adams. As the work of the previous sections become operational, it would be the procedures we developed, not the data generated, which might potentially generalize to other sites. The outlook is somewhat different for controlled research.

Research (The Generation of Generalizable Data)

It should be anticipated that Adams will be a desirable site for the carefully controlled testing of a whole range of good ideas, from new instructional packages to hypotheses about decision-making or new administrative arrangements. One of the major tasks of the research



effort will involve developing and setting up the necessary procedures for eliciting, developing, administering, and controlling research within Adams. What kind of a setting, and what kind of arrangements with outside institutions will make Adams the most fruitful site for research? How are research objectives to be determined? Who will constitute the decision-making body? What are the priorities among various research objectives, and how are these priorities established? What is the regulating mechanism? How are the staff members selected for a project, and what is their relationship to the outside agencies?

At present we have only the most meager guidelines for this. Adams is in a sense unique, and potentially can do things that other research groups and institutions cannot do, the difficulty is likely to be to decide what not to do. Probably the research at Adams should not be of a sort that involves essentially laboratory problems, or problems that can just as well be worked on through special projects in cooperating classrooms of other schools. Adams has the capacity to look at the school and its relationship to the outside as a whole, at the total environment of the school, at how particular innovations affect that environment, at the appropriate roles for the teacher and the student to play, at the appropriate organizational and decisionmaking patterns, the processes of planned change, and the adaptation and implementation of systems developed elsewhere. Adams should not squander this unique position on research which could just as well be done elsewhere. Furthermore, the standards for such research should be at least of the quality demanded by professional research journals, and the research program should in some way contribute to the overall objectives of Adams High School.

At the moment we envision a set of committees to elicit ideas, to screen ideas, to develop the good ideas into projects or proposals, and to act as a regulatory board. However, the exact functioning of these committees and whether operating this segment of Adams through a set of committees is at all a viable mechanism would be part of the exploratory operatory operation of the first year or so. The continual examination of the process of developing and managing research activities is a critically necessary part of the operation of the school.



Historical Longitudinal Records (Description)

We suggest that the third additional area of the Research and Evaluation effort at Adams High School should be to attempt to document the evolution of the Adams experiment historically and to explore different procedures for such documentation. There are at least five aspects of such an historical, longitudinal study:

- 1. A description of the physical, political, community contexts within which Adams rests.
- 2. A record of the critical decisions in the history of the development of Adams, including the contexts within which the decisions were made.
- 3. A record of the events that have occurred which are critical in the history of Adams.
- 4. A record of the consequences that followed from the critical decisions or events.
- 5. A description of the structure, content, and operation at all levels, and within all domains of Adams at key points in time.

The problems of the type of data to gather in the historical longitudinal study and the level of power and comprehensiveness with which the data should be collected are not easily solvable. Critical events and critical decisions in the history of the school are not often apparent before they happen, and thus when one speaks of documenting such critical events or critical decisions, one is talking about documenting an historical event. Similarly, the consequences that follow from critical decisions or key events cannot be determined until such events or decisions have been identified, and the documentation of these consequences would again be a matter of historical reconstruction. Steps can be taken to insure a more adequate record for a future historian. The theory and procedures are those employed by archivists and one part of the Research and Evaluation effort of Adams High School should be to develop an adequate and systematic archives for Adams.

Procedures can be set up in advance to gather a description of the structure, content, and operation of all levels and all domains of Adams at key points in time; and to describe the physical, political context within which Adams rests at key points in time. The determination of which aspect or aspects of the structure, content, and operation of Adams



to document; and which aspect of the physical, political, community context to document is difficult to determine in advance. However, logically the determination of the critical aspects of these features should be related to the overall objectives of Adams High School; and the power of the instruments, measures, or indices used in gathering this data should depend upon the audience which the school has in mind.

To gather periodic data on the state of the institution involves setting up a schedule and submitting at regular intervals to whatever measures could be designed for taking a reading. Presumably we should gather data on as many groups: faculty, students, administration, parents; and on as many functions: decision-making, interpersonal relationships, information flow; as possible. We should explore the whole range of instruments for taking readings: written questions, interviews, tapes of discussions, unobtrusive measures, or projectives.

